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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,832	03/28/2001	Craig M. Noah	2771-351	5883

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EXAMINER	
CHAUDRY, ATIF H	
ART UNIT	PAPER NUMBER
3753	
MAIL DATE	DELIVERY MODE
06/29/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/720,832	NOAH ET AL.	
	Examiner	Art Unit	
	ATIF CHAUDRY	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Status of the claims

Applicant's amendment as filed on 04/19/2011 has been entered. No claims are amended. Currently claims 1-24 are pending in this application.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ray (3976227).

3. Ray (Fig. 1-4) discloses a cabinet 10 having four refill canisters (top canisters), each refill canister 52 feeding a process canister 42 through a manifold 56 and process line 82,each process canister 42 is connected to the process tool 68,76. The recitation "first chemical", "second chemical" and so forth or the specific chemicals are seen as intended use in the apparatus claim. The materials handled by the apparatus in an apparatus claim are not seen to impart patentable weight, MPEP 2115. The recitation "for delivering multiple different chemicals to a process tool" is seen as intended use with no patentable weight.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-4 and 7 are alternatively rejected and claims 5, 6, 10-13, 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegele et al. (5590695) in view of Turner et al. (5014211) further in view of Ray (3976227).

7. Regarding claims 1-6, Siegele et al. (Fig. 37, 18) discloses a system for delivering liquid chemicals to a process tool comprising a first refill canister 220 that contains a first liquid chemical and a first process canister 30 that are connected to a first manifold that connects a first process line 249 wherein the first refill canister refills a first chemical to the first process canister through the first manifold and wherein the first process canister supplies the first chemical to the process tool. The manifold comprises a vacuum supply valve 75 connected to a vacuum generator; a control valve (combination of pressure vent valve 73 and gas inlet valve 71 as shown in Fig. 18) connected to vacuum generator; wherein the control valve comprises a pressure vent valve 73 connected to the vacuum generator and gas inlet valve 71 to the pressure vent

valve 73; wherein the gas inlet valve 71 is also connected to a bypass valve 72, an isolation valve 70 connected to a canister outlet valve 266 and to the bypass valve 72, and a canister inlet valve 264 connected to the bypass valve 72, the control valve (combination of 73 and 71), and the canister outlet valve 266.

Siegele et al. a delivery apparatus comprising a refill canister connected through a manifold and process line to a process canister further connected to a process tool but fails to disclose arrangement for delivering different chemicals to the process tool in parallel. Turner et al. (Fig. 1) teaches a chemical delivery system with a process tool 150 fed by multiple delivery apparatuses 102, 104, 106 (each delivery apparatus comprising a separate container and a separate pump carrying manifold connecting the container to output line 130) in parallel, each delivery apparatus providing a different chemical to the process tool. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Siegele et al with arrangement for delivering different chemicals to the process tool in parallel as taught by Tuner et al. in order to enable different materials to be supplied simultaneously. The optimal number of delivery apparatus (process and refill canisters with manifold) arranged in parallel would have been a matter of obvious choice based on system requirements.

Siegele et al. discloses multiple refill canisters housed in a cabinet 69 but fails to disclose all the refill and process canisters in a single cabinet. Ray (Fig. 1-4) discloses a cabinet 10 having four refill canisters (top canisters), each refill

canister 52 feeding a process canister 42 through a manifold 56 and process line 82,each process canister 42 is connected to the process tool 68,76. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Siegele et al. with all the refill and process canisters housed in a single cabinet as taught by Ray in order to provide a compact system.

8. Regarding claims 10-13, 17-21, in making and using the device disclosed by Siegele et al. (Fig. 18, 37) for delivering liquid chemicals to a process tool, one would necessarily perform the steps of providing a first refill canister 220 that contains a first liquid chemical and a first process canister 30 that are connected to a first manifold that connects a first process line 249 wherein the first refill canister refills a first chemical to the first process canister through the first manifold and wherein the first process canister supplies the first chemical to the process tool. The manifold comprises a vacuum supply valve 75 connected to a vacuum generator; a control valve (combination of pressure vent valve 73 and gas inlet valve 71 as shown in Fig. 18)connected to vacuum generator; wherein the control valve comprises a pressure vent valve 73 connected to the vacuum generator and gas inlet valve 71 to the pressure vent valve 73; wherein the gas inlet valve 71 is also connected to a bypass valve 72, an isolation valve 70 connected to a canister outlet valve 266 and to the bypass valve 72, and a canister inlet valve 264 connected to the bypass valve 72, the control valve (combination of 73 and 71), and the canister outlet valve 266.

Siegele et al. discloses a delivery apparatus comprising a refill canister connected through a manifold and process line to a process canister further connected to a process tool but fails to disclose arrangement for delivering different chemicals to the process tool in parallel. Turner et al. (Fig. 1) teaches a chemical delivery system with a process tool 150 fed by multiple delivery apparatuses 102, 104, 106 (each delivery apparatus comprising a separate container and a separate pump carrying manifold connecting the container to output line 130) in parallel, each delivery apparatus providing a different chemical to the process tool. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Siegele et al with arrangement for delivering different chemicals to the process tool in parallel as taught by Tuner et al. in order to enable different materials to be supplied simultaneously. The optimal number of delivery apparatus (process and refill canisters with manifold) arranged in parallel would have been a matter of obvious choice based on system requirements.

Siegele et al. discloses multiple refill canisters housed in a cabinet 69 but fails to disclose all the refill and process canisters in a single cabinet. Ray (Fig. 1-4) discloses a cabinet 10 having four refill canisters (top canisters), each refill canister 52 feeding a process canister 42 through a manifold 56 and process line 82,each process canister 42 is connected to the process tool 68,76. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Siegele et al. with all the refill

and process canisters housed in a single cabinet as taught by Ray in order to provide a compact system.

9. Regarding claim 7, the chemicals delivered through the device are seen as intended use with no bearing on patentability (MPEP 2115). Regarding claims 14 and 22, because Siegele et al. (col 23, table 1) teaches the use of the particular chemicals claimed but fails to disclose the chemicals supplied by different canisters in parallel. To modify the system of Siegele et al. with parallel supply lines for each of the different chemicals claimed would have been obvious in view of Turner et al. as described above.

10. Claims 8, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegele et al. (5590695) in view of Turner et al. (5014211) and Ray (3976227) further in view of Picioccio et al. (5685435).

11. Siegele et al. discloses a cabinet 69 and a control unit 40 (Fig. 2) with switches for controlling the system but fails to disclose structural details of the cabinet. Picioccio et al. (Fig. 2, 4) discloses a storage cabinet for canisters 200 comprising wheels, a rectangular cabinet with door 115 having a touch-screen 120. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Siegele et al. with a rectangular cabinet having a door with touch screen as a control unit as taught by Picioccio et al. in order to enable the control of the system from outside the cabinet.

12. Claims 9, 16, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Siegele et al. (5590695) in view of Turner et al. (5014211) and Ray (3976227) further in view of Daly (5048902).

13. Siegele et al. discloses a cabinet 69 but fails to disclose a drain pan. Daly (Fig. 2) teaches a storage cabinet with an angled containment floor leading to a drain pan 29. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided the device disclosed by Siegele et al. with an angled containment floor leading to a drain pan as taught by Picioccio et al. in order to improve drainage of spilled chemicals.

Response to Arguments

14. Siegele et al. discloses a cabinet 69 but fails to disclose a drain pan. Daly (Fig. Applicant's arguments filed 04/19/2011 have been fully considered but they are not persuasive.

15. Applicant's argument that "*Ray's disclosure focuses on delivery of one chemical*" is not persuasive since materials handled by the apparatus in an apparatus claim are not seen to impart patentable weight.

16. Applicant's argument that "*Ray's chemical dispensing unit ties all canisters 42 to one liquid manifold 46 ….. Therefore, Ray fails to disclose every element of Applicants' claimed invention, and therefore cannot anticipate independent claim 1.*" is not persuasive since Ray (Fig. 1-4) discloses each refill canister 52 feeding a process canister 42 through a separate manifold 56. The fact that the canisters are further tied to

a single manifold is immaterial in considering patentability of the claim since it is not precluded by the claim.

17. Applicant's argument that "*Turner fails to disclose at least two manifolds for handling the two different chemicals. Instead, Turner specifically discloses that "[a]n important feature of the invention is that a single set of chemical pumps with a single manifold and single distribution tube are used to deliver chemicals to multiple destinations*" is not persuasive since Turner et al. (Fig. 1) teaches a chemical delivery system with a process tool 150 fed by multiple delivery apparatuses 102, 104, 106 (each delivery apparatus comprising a separate container and a separate pump carrying manifold connecting the container to output line 130) in parallel, each delivery apparatus providing a different chemical to the process tool.

18. Applicant's argument that "*Siegele specifically fails to disclose a system including at least two different manifolds for handling the two different chemicals housed in a single cabinet*" is not persuasive since Turner et al. (Fig. 1) has been cited to show incorporation of different delivery apparatuses arranged in parallel, each delivery apparatus providing a different chemical to the process tool, and Ray has been cited to show teaching of multiple canisters housed in a single cabinet.

19. Applicant's argument that "*Turner fails to disclose at least two manifolds for handling the two different chemicals. Instead, Turner specifically discloses that "[a]n important feature of the invention is that a single set of chemical pumps with a single manifold and single distribution tube are used to deliver chemicals to multiple destinations*" is not persuasive since Turner et al. (Fig. 1) teaches a chemical delivery

system with a process tool 150 fed by multiple delivery apparatuses 102, 104, 106 (each delivery apparatus comprising a separate container and a separate pump carrying manifold connecting the container to output line 130) in parallel, each delivery apparatus providing a different chemical to the process tool.

20. Applicant's argument that "*Turner discloses delivery of chemicals to multiple destinations, as opposed to delivery of multiple chemicals to a single process tool*" is not persuasive since Turner et al. (Fig. 1) teaches a process tool 150 fed by multiple delivery apparatuses 102, 104, 106 (each delivery apparatus comprising a separate container and a separate pump carrying manifold connecting the container to output line 130) in parallel. The fact that the process tool 150 is capable of serving multiple destinations is not precluded by the claims.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATIF CHAUDRY whose telephone number is (571)270-3768. The examiner can normally be reached on Mon-Fri 8-5 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hepperle can be reached on (571)272-4913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Atif H Chaudry/
Examiner, Art Unit 3753

/STEPHEN M HEPPERLE/
Supervisory Patent Examiner, Art Unit 3753

6/23/2011